Symposium | A. Advances in Materials Theory for Multiscale Modeling

[SY-A10]Symposium A-10

Chair: Steve Fitzgerald(University of Leeds, UK)

2018年11月1日(木) 11:15 ～ 12:30 Room6

[SY-A10]Interdiffusion and atomic mobilities in fcc Ag-Mg, Ag-Mn and Ag-Mg-Mn alloy

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On the basis of Ag/Ag-Mg, Ag/Ag-Mn, Ag-Mg/Ag-Mn, and Ag/Ag-Mg-Mn diffusion couples, the interdiffusion coefficients in face-centered cubic (fcc) phase of the Ag-Mg, Ag-Mn, and Ag-Mg-Mn alloys were messured at the temperature range between 873 and 1173 K by using semi-infinite diffusion couples together with the Sauere-Freise method. A reliable method was applied to evaluate the errors of the identified interdiffusivities in consideration of the propagation of errors. Based on available thermodynamic information, the atomic mobilities for the fcc Ag-Mg, Ag-Mn,and Ag-Mg-Mn syetems are obtained by using the DICTRA software package, and the computed results agree in general with experimental data.